

Notice of Allowability	Application No.	Applicant(s)	
	10/630,688	KIM ET AL.	
	Examiner	Art Unit	
	Tarifur R Chowdhury	2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☐ This communication is responsive to _____.
2. ☒ The allowed claim(s) is/are 1-9 and 20-33.
3. ☒ The drawings filed on 31 July 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date <u>07/31/03</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Ms. Rebecca Rudich on January 12, 2005.

The application has been amended as follows:

Claims 10-19 and 34-51 have been canceled.

In claim 1, line 10, "contact the upper" has been changed to --contact with the upper--.

In claim 7, line 8, "a drain" has been changed to --the drain--.

In claim 28, lines 7-8, "the drain electrode" and "the source electrode" have been changed to --a drain electrode--and --a source electrode--.

In claim 28, line 10, "and source" has been changed to --and the source--.

In claim 28, line 11, "forming a drain" has been changed to --forming the drain--.

Allowable Subject Matter

2. Claims 1-9 and 20-33 are allowed.

3. The following is an examiner's statement of reasons for allowance:

4. As to claim 1, the prior arts of record do not anticipate or render obvious to one skilled in the art a transfective type LCD device having a pixel region with a reflective part and a transmitting part comprising various elements as claimed, more specifically a lower storage electrode formed by a portion of a preceding gate line and an upper storage electrode above the lower storage electrode, a transmitting electrode in contact with the upper storage electrode and a reflective electrode in contact with the transmitting electrode in the reflective part of the pixel region wherein the transmitting electrode is in between the reflective electrode and the substrate.

5. As to claim 7, the prior arts of record do not anticipate or render obvious to one skilled in the art a transfective type LCD device having a pixel region with a reflective part and a transmitting part comprising various elements as claimed, more specifically an upper storage electrode of a storage capacitor at a preceding gate line integral with the drain electrode; a transmitting electrode in the pixel region in contact with the upper storage electrode; a passivation layer including a first transmitting hole with an inclination exposing a predetermined portion of the transmitting electrode and a reflective electrode on the inclination of the passivation layer and bottom corner of the first transmitting hole.

6. As to claims 20 and 28, the prior arts of record do not anticipate or render obvious to one skilled in the art a method of manufacturing a transfective liquid crystal

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display device having a pixel region with a reflective part and a transmitting part comprising various steps as claimed, more specifically the steps of forming a transmitting electrode in the pixel region in contact with the upper storage electrode; forming a passivation layer having a transmitting hole exposing one portion of the transmitting electrode and forming a reflective electrode in the reflective part of the pixel region in contact with the transmitting electrode.

7. The AAPA described in the instant application discloses a transfective type LCD device having a pixel region with a reflective part and a transmitting part comprising a lower storage electrode, an upper storage electrode in contact with the drain electrode, a passivation layer including a transmitting hole with an inclination, a reflecting electrode on the inclination of the passivation layer and a transmitting electrode in direct contact with the drain electrode through a contact hole. However, the AAPA fails to teach or suggest that the reflective electrode is in contact with the transmitting electrode wherein the transmitting electrode is in between the reflective electrode and the substrate and that the passivation layer including a transmitting hole exposing a predetermined portion of the transmitting electrode. Further, USPAT 6,734,935 (common assignee) discloses a transfective liquid crystal display device comprising a passivation layer with a transmitting hole, a transmitting electrode formed on the transmitting hole, a second passivation layer formed on the transmitting electrode and a reflective electrode is formed on the second passivation layer. Also, USPAT 6,704,081 (common assignee) discloses a transfective liquid crystal display device comprising a first passivation layer with a first transmitting hole corresponding to the transmissive region and an inclined

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portion surrounding the first transmissive hole, a reflector on the first passivation layer, wherein the reflector corresponds to the reflective region and covers sides of the transmissive region asymmetrically, a second passivation layer on the reflector and a transparent electrode is on the second passivation layer.

However, all of the references alone or in combination with any other prior art references fail to teach or suggest the claimed transfective liquid crystal display device or a method of forming a transfective display device as claimed.

8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

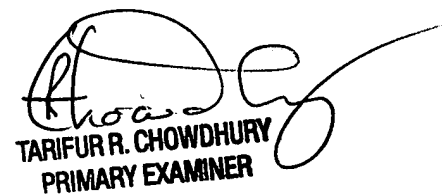
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (571) 272-2287. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (571) 272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TRC
January 12, 2005



TARIFUR R. CHOWDHURY
PRIMARY EXAMINER